

In the Claims:

1. (Amended) A system for determining whether a vehicle having an associated vehicle path is within an allowed approach of a location, comprising:

navigation means, associated with [on board] the vehicle, for generating vehicle data[, wherein the vehicle data is generated] at periodic intervals along the vehicle path [and] wherein the vehicle data includes vehicle position [and heading] data;

means for transmitting the vehicle data;

means, associated with the location, for receiving the vehicle data;

mapping means, associated with the location, for storing [programming] a plurality of positions corresponding to allowed approaches to the location [under control of a map mode command and] and providing therefrom a map of allowed approaches;

evaluation means [for tracking the vehicle path and] for comparing the vehicle data to the map of allowed approaches to determine whether the vehicle path is within an allowed approach[; and

means for generating a control signal if the vehicle is within an allowed approach].

In claim 3, line 1, please delete "traffic control preemption".

In claim 4, line 1, please delete "traffic control preemption".

In claim 5, line 1, please delete "traffic control preemption".

In claim 6, line 1, please delete "traffic control preemption".

In claim 7, line 1, please delete "traffic control preemption".

In claim 8, line 1, please delete "traffic control preemption".

11/10. (Amended) A traffic control preemption system, comprising:
a vehicle module associated with a vehicle having a corresponding
vehicle path, the vehicle module comprising:
means for receiving signals from a Global Positioning System
and for generating therefrom vehicle data, wherein the vehicle data is generated at
periodic interval positions along the vehicle path [of travel and includes vehicle position
and heading data]; and
means for transmitting the vehicle data; and
an intersection module associated with an intersection and adapted to
track the vehicle path, the intersection module comprising:
a programmed map of [adapted to provide a plurality of stored
positions corresponding to] allowed approaches to the intersection [under control of a
map mode command]; and
a processor adapted to receive and compare the vehicle data to
the programmed map to determine whether the vehicle path is within an allowed
approach;
such that if the vehicle is within an allowed approach to the intersection
the vehicle is allowed to preempt traffic signals associated with the intersection.

In claim 12, line 1, please delete "traffic control preemption".

In claim 13, line 1, please delete "traffic control preemption".

164. (Amended) A traffic control preemption method which uses data received from a global positioning system (GPS) to determine whether a vehicle, having an associated vehicle path, is allowed to preempt [a] traffic signals at an intersection, comprising the steps of:

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- (a) receiving GPS signals;
 - (b) processing the GPS signals on-board the vehicle so as to generate vehicle data;
 - (c) transmitting the vehicle data;
 - (d) providing a map of allowed approaches, wherein the map of allowed approaches comprises a plurality of preprogrammed allowed positions proximate to the intersection;
 - (e) comparing the vehicle data with the map of allowed approaches;
- [and
- (f) generating a preemption control signal if the vehicle data sufficiently matches the map of allowed approaches]
 - (f) determining, based on comparing step (e), whether the vehicle is within one of the allowed approaches; and
 - (g) allowing the vehicle to preempt the traffic signals associated with the intersection if the vehicle is within one of the allowed approaches.

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186. (Amended) The method of claim 14 wherein the step of providing a map of allowed approaches further comprises [An method of mapping an allowed approach, comprising] the steps of:

- (a) receiving GPS signals at a first position of an allowed approach [path];
 - (b) processing the GPS signals to generate mapping data;
 - (c) transmitting the mapping data [and a map mode command];
 - (d) programming the mapping data to generate the map of allowed approaches [under control of the map mode command];
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(e) receiving GPS signals at a next position of the allowed approach path;

(f) repeating steps (b)-(e) until the allowed approach path is completely mapped.

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94 (Amended)
(Amended) A method of determining whether a vehicle is allowed to preempt a traffic signal [tracking a path of travel of a vehicle], comprising the steps of:

(a) receiving a first position signal indicative of a first location of the vehicle;

(b) determining whether the received position signal is within a mapped approach to the traffic signal[, and if it is not, returning to step (a)];

(c) recording the received position signal as a match if the received position signal is within an allowed approach;

(d) receiving a next position signal indicative of a next location of the vehicle;

(e) determining whether the received position signal is within a mapped approach[, and if it is not, recording the received position signal as a miss];

(f) recording the received position signal as a match if the received position signal is within a mapped approach;

(g) repeating steps [(b)][(d)]-(f) until a match threshold is reached;

[(h) determining whether a miss threshold is reached;

(i)] (h) issuing a preemption request if the match threshold is reached; [and the miss threshold is not reached;

(j) dropping a preemption request if the match threshold is reached and the miss threshold is reached;

(k)] (i) repeating steps (d)-[(j)] (h) as long as next position signals are received.